

POG 86E

Solid shaft with EURO flange B10
500...5000 pulses per revolution

Overview

- Robust, compact housing
- Two bearings with large distance, one at each end
- High shaft load up to 350 N
- Shock resistant up to 300 g
- Highest operating speed 12000 rpm
- TTL output driver for cable length up to 550 m
- Terminal box, turn by 180°



HUBNER
BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5\%$
Consumption w/o load	≤ 100 mA
Pulses per revolution	500 ... 5000
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	45...55 % 40...60 % (>3072 pulses)
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 170 kHz ≤ 300 kHz (on request)
Output signals	K1, K2, K0 + inverted
Output stages	HTL-P (power linedriver) TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE UL approval / E217823 / CSA

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft

Technical data - mechanical design

Admitted shaft load	≤ 250 N axial ≤ 350 N radial
Flange	EURO flange B10
Protection EN 60529	IP 56
Operating speed	≤ 12000 rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	200 gcm ²
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-40...+100 °C -25...+100 °C (>3072 pulses)
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Corrosion protection	Option: IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 3 G Ex ec IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box
Weight approx.	1.4 kg

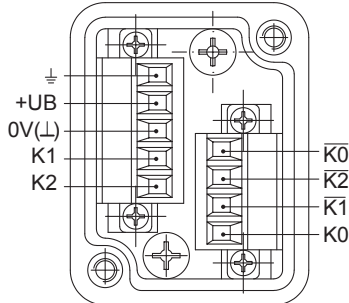
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Terminal assignment

View A (see dimension)

Connecting terminal terminal box



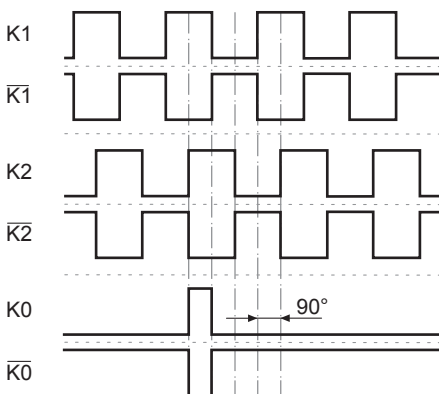
Terminal significance

+UB	Voltage supply
0V (⊥)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

Output signals

HTL/TTL

At positive rotating direction (see dimension)

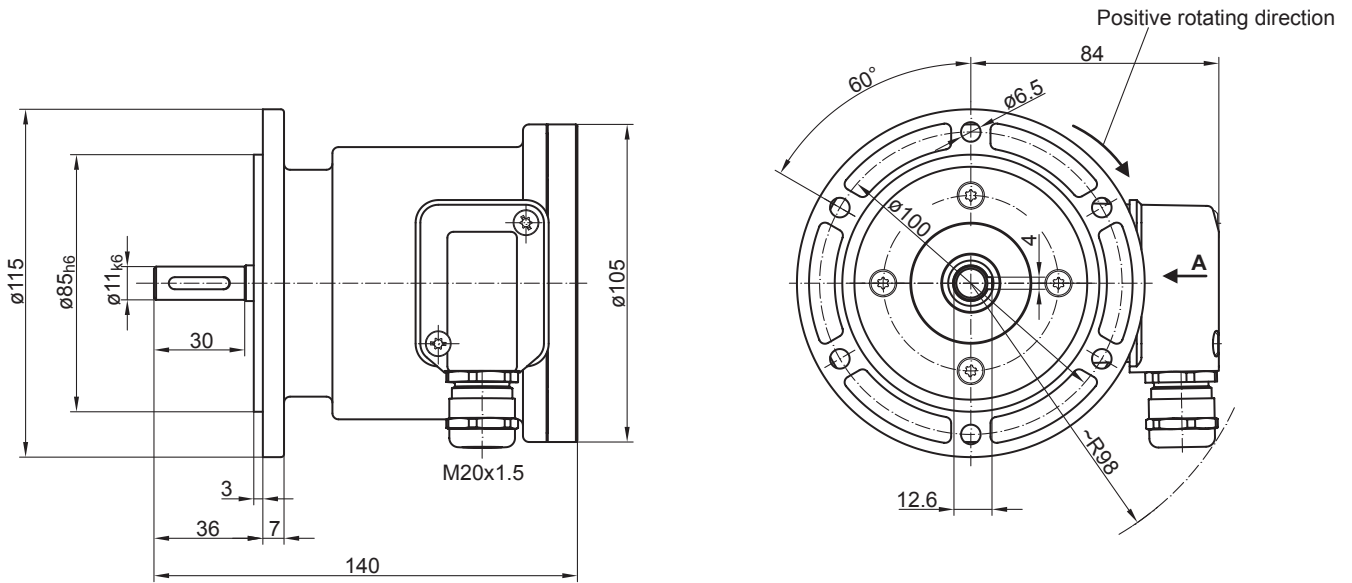


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Dimensions



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Ordering reference

	POG86E	T	N	1	DN	####	###	##
Product	Incremental encoder	POG86E						
Connection	1x terminal box, radial	T						
Insulation	Without		N					
Shaft diameter	ø11 mm solid shaft			1				
Output signals	K1, K2, K0				DN			
Pulse number⁽¹⁾								
500						500		
512						512		
1000						1000		
1024						1024		
1250						1250		
2048						2048		
2500						2500		
3072						3072		
4096						4096		
5000						5000		
Voltage supply / output stage								
9...30 VDC / output stage HTL with inverted signals							I	
5 VDC ±5 % / TTL							T	
9...30 VDC / output stage TTL with inverted signals							R	
Corrosion protection								
Without								
Suitable for ambient conditions C4 according to ISO 12944-2								C4

(1) Other pulse numbers on request.

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)